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ABSTRACT

Through the use of mailed and personal interview questionnaires, the study attempted to determine the extent of formal, organized training programs in Wisconsin sponsored by business, industry, labor, and government. Information was sought concerning the areas of training presently provided, the amount of training in terms of number of trainees, and the purposes of training programs; i.e., whether they are used for job entry, retraining, or upgrading of employees. A further area of interest was to determine in what ways Wisconsin Vocational, Technical, and Adult Education (VTAE) Districts can be of assistance to business, industry, labor, and government employers with their training programs and to increase communication between personnel in these organizations and VTAE personnel. The findings of the study are tabulated and discussed in detail and recommendations made for further study. Appendixes include a nine-item bibliography, lists of members of advisory committees and personnel involved in the study, and a copy of the questionnaire. (KP)

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FINAL REPORT

PROJECT No. 09-077-151-223

A STUDY OF TRAINING PROGRAMS SPONSORED BY BUSINESS, INDUSTRY, LABOR, AND GOVERNMENT IN THE STATE OF WISCONSIN

JULY 1973

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WISCONSIN BOARD OF VOCATIONAL, TECHNICAL AND ADULT EDUCATION

MADISON, WISCONSIN

FINAL REPORT

Project No. 09-077-151-223

A STUDY OF TRAINING PROGRAMS SPONSORED BY BUSINESS, INDUSTRY, LABOR, AND GOVERNMENT IN THE STATE OF WISCONSIN

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July 1973

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District One	Milwaukee Area
Western Wisconsin	Moraine Park
Blackhawk	Mid-State
Gateway	North Central
Waukesha County	Wisconsin Indianhead

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To the Study Advisory Committee who assisted in the planning of this study and the instruments used.

To Wisconsin State Employment personnel who provided information regarding names and addresses of firms for this study.

(Names of individuals on the Advisory Committees, American Society for Training and Development members, and VTAE personnel who assisted in this study are shown in Appendix A.)

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CHAPTER I

INTRODUCTION

Statement of the Problem

This study deals with the extent of organized formal training programs for employees, held both on and off company premises. It also attempts to identify areas where vocational, technical, and adult education schools might be of assistance in these programs, through provision of instruction, guidance, and/or new programs.

Since the technical school exists to prepare and equip its students with skills that will make them employable, the extent of existing in-company training activities within Wisconsin industry, government, services, and business would be useful for planning purposes. Limited information is available about the breadth of these industry-developed programs. It is known that such activity is extensive in its frequency, because the numbers of training personnel employed in Wisconsin companies reveal this. However, information regarding the kind of programs and the extent of the activity is lacking.

The availability of such information would be useful in planning courses and programs in the various vocational districts, so this study was developed to obtain the required information directly from Wisconsin business, industry, and government personnel.

In August 1971, the Milwaukee Area Technical College completed a study of educational and vocational programs sponsored by private proprietary schools located in the Milwaukee Area Technical College District of Wisconsin. This study is designed to supplement the results obtained from the study of programs in private vocational-technical schools.[1]

[1] "Vocational and Technical Education Programs Sponsored by the Private Sector," Milwaukee Area Technical College, August 1971.

Objectives of the Study

1. To indicate the extent of formal, organized training programs in Wisconsin sponsored by business, industry, labor, and government.

2. To determine the areas of training presently provided and the amount of such training being done in the State of Wisconsin in terms of number of trainees.

3. To assess the purposes of training programs, such as whether they are used for job entry, retraining, or upgrading of employees.

4. To determine how Wisconsin VTAE Districts can be of assistance to business, industry, labor, and government employers with their training programs.

5. To increase communication between VTAE District personnel and business, industry, labor, and government training personnel.

Background of the Study

A review of the literature showed no studies that pertained to the objectives of this study. Discussions with training personnel from the Wisconsin Chapter of the American Society for Training and Development indicated that data regarding training programs in business and industry were not available.

Three studies which included training programs in the State of Wisconsin were reviewed. The most comprehensive of these studies regarding training programs, The Availability of Data on Company Training Programs: A Feasibility Study, indicated the desirability and significance of the thorough study of training programs, but pointed out the difficulties in carrying out such a study.[2]

[2]Gerald G. Somers, Myron Roomkin, and others, The Availability of Data on Company Training Programs: A Feasibility Study, Center for Studies in Vocational and Technical Education, The University of Wisconsin, June 1971.

The feasibility study found that 170 of 248 firms had some training programs. As shown in Tables 1 and 2[3], larger employers (500 or more employees) tended to have more training programs than smaller employers.

Table 1

Training Status of Firms by Size of Firm

Sample and Training Status	Size of Firm (No. of employees) 1 100	101 250	251 500	501 1,000	1,001 2,000	2,001 Plus
All firms in interview sample (N=248=100%)	14.0	17.0	15.4	10.2	12.5	30.7
Firms with training (N=170-100%)	6.5	15.4	13.0	14.2	15.9	34.9

Table 2

Number of Training Programs per Company

Size of Company (Number of Employees)	(Number of Companies)	By Size of Company: No. of Training Programs per Company 1-5	6-10	11-15	16-20	21+	Total
		Percentage of Companies					
1 - 100	13	100.00					
101 - 250	27	85.19	11.11	3.70			100.00%
251 - 500	24	83.33	16.67				100.00%
501 - 1000	26	69.23	11.54	19.23			100.00%
1001 - 2000	27	33.33	51.85	7.41		7.41	100.00%
2000 +	64	42.19	25.00	21.88	4.68	6.25	100.00%

[3] Ibid, page 2.

The principal reason determined in this study for conducting training programs in private industry was to prepare newly hired employees for needed skills.

A major purpose of the study was to determine the availability of data regarding training programs and trainees. As indicated in the following quote, the researchers were not optimistic about obtaining data on training programs:

> "In general, it was found that only a relatively small proportion of the firms kept records concerning training and trainees which could be readily transferred to a questionnaire form. Even these 'records' frequently contained gross estimates for the company as a whole rather than specific detailed information by training program. The respondents tended to reply in vague terms rather than in specifics. Generally, they expressed no regrets at their lack of records, indicating that they had little need for such records and that the effort to maintain detailed records would not be justified on the basis of costs and benefits."[4]

A number of the suggestions made in the feasibility study regarding procedures and questions to be used on the interview instrument were used in the present study.

A second University of Wisconsin study was primarily concerned with manpower forecasting but included some data regarding training programs.[5] This study was limited to interviews with 159 firms in the City of Milwaukee. The researchers found that manpower forecasts of firms did not appear to be closely related to their training programs.

> "As for type of training program, the lack of significant relationship between involvement in training and

[4]Ibid, page 7.

[5]Richard Perlman, Assessing the Extent of Manpower Forecasting among Milwaukee Firms, Center for Studies in Vocational and Technical Education, The University of Wisconsin, June 1969.

> forecasting has been noted with respect to many of the previous aspects of forecasting. Here the independence of training program from manpower needs is even more sharply pointed. The existence of informal or formal apprenticeship and training programs at firms bears no significant relationship to how important they feel overestimate of labor needs will affect their efficiency. Since more formal programs would lead to closer conformity to planned needs than would informal training arrangements, one would think that the firm worried about manpower oversupply would try to provide for its needs by the surest method--by formal training. Perhaps they do behave in this manner, but as was noted above, many firms engage in training for reasons other than the satisfaction of particular expected manpower needs, and this practice obscures the significant relationship that might otherwise hold between type of training programs and importance of forecasting errors."[6]

The major conclusion of the manpower forecasting study was that forecasts of Milwaukee firms are of little help to agencies collecting forecasting data. The researchers concluded that the main reason forecasting is not conducted more scientifically is that the companies rarely make use of forecasts in their own manpower policies.[7]

A comprehensive study of possible occupational needs projection techniques for vocational education curriculum planning purposes was carried out by the Wisconsin State Employment Service.[8] Although only limited data on training programs were collected in this study, the researchers did indicate the importance of training programs for curriculum planning in vocational-technical schools.

[6]Ibid, page 48.

[7]Ibid, page 53.

[8]William R. Fischer, Project Vision, Wisconsin State Employment Service, June 1970.

> "It is conjectured that one of the most constructive ways an employer can meet his needs is via the in-plant training route. PROJECT VISION was not able to undertake a comprehensive study of in-plant training and upgrading as they were programmed by Milwaukee employers at the time of the survey. However, it recognizes the important implications that they have for evaluating future vocational education planning in the community. An understanding of the 'internal' labor market is so essential that it is recommended that 'port-of-entry' jobs be more adequately investigated together with hiring practices and promotional procedures as they relate to training."[9]

Wisconsin State Employment Service personnel encouraged the present study and provided assistance for the study.

[9]Ibid, page 226.

CHAPTER II

PROCEDURES

An Advisory Committee composed of business and industrial representatives, State Board of Vocational and Technical Adult Education staff, Wisconsin State Department of Public Instruction, and the Wisconsin State Employment Service assisted in the preparation of the instruments used in this study and the planning of this study (see Appendix A for Advisory Committee members). A mail questionnaire was developed and reviewed by the Advisory Committee. In March and April of 1972 this questionnaire was sent to 235 employers in the State of Wisconsin with more than 100 employees. A total of 81 responses was received.[10] These questionnaires are included in the sample in this study. Because the response was relatively low, and because it was discovered that more detailed communication was desirable, an interview questionnaire was prepared. The interview questionnaire was reviewed by VTAE Board staff, Advisory Committee members, and District VTAE Technical and Industrial Coordinators (see Questionnaire, Appendix B).

The Wisconsin State Employment Service provided names and addresses of employers in the State of Wisconsin with more than 100 employees. After the interview questionnaire was field tested in the Milwaukee Area Technical College District, each District VTAE Technical and Industrial Coordinator was sent a list of employers in his District with more than 100 employees, and with questionnaires and instructions for conducting the interviews. Personal interviews were held with employers by T&I Coordinators and other personnel in the District. Table 3 indicates the number of questionnaires returned in the VTAE Districts that cooperated in the study. Ten of the 16 VTAE Districts participated in the study. The other six for various reasons did not participate in the study. These interviews were conducted during the period of July 1972 and March 1973. The majority were completed between July and October of 1972. In some cases 2 Districts interviewed the same employer. In these cases the firm was counted only in the District in which the firm is located.

[10] A study conducted by Stout State University personnel used these questionnaires as the basis for the study entitled, "Career Education Provided by Business and Industry in the Milwaukee Area," Wisconsin Board of Vocational, Technical and Adult Education, June 1972.

Table 3

Number of Questionnaires Returned
By VTAE District

District*	Number of Questionnaires Returned	Percent
District One	13	3.8%
Western Wisconsin	21	6.1%
Blackhawk	15	4.4%
Gateway	23	6.7%
Waukesha County	5	1.5%
Milwaukee Area	176**	51.5%
Moraine Park	46	13.4%
Mid-State	8	2.3%
North Central	17	5.0%
Wisconsin Indianhead	18	5.3%
	342	100.0%

*See map, page 9.
**Includes 81 questionnaires obtained by mail, most of which are from the Milwaukee area.

The questionnaires were categorized by Standard Industrial Classification (SIC). In groupings where sufficient numbers of questionnaires were available, teams of training specialists were established to analyze the results. The members of the analysis teams are all active members of the Wisconsin Chapter of the American Society for Training and Development. Coordination of the analysis portion of the study was through a contract with the Wisconsin ASTD and MATC. Analysis teams were formed in the following six groupings:

Team A - Manufacturing, Nondurable Goods
Team B - Manufacturing, Durable Goods
Team C - Transportation, Communication, Electric, Gas and Sanitary Services
Team D - Wholesale and Retail Trade
Team E - Finance, Insurance, and Real Estate
Team F - Services

Names of the members of the analysis teams are shown in Appendix A.

Sample Used in the Study

Table 4 shows the distribution of returns by Standard Industrial Classification code, and Table 5 summarizes the returns by major groupings. The percentage of manufacturing

State of Wisconsin

BOARD OF VOCATIONAL, TECHNICAL & ADULT EDUCATION

EUGENE LEHRMANN State Director

VOCATIONAL, TECHNICAL & ADULT EDUCATION DISTRICTS

Approved for Operation July 1, 1972

firms represents about 67% of the total sample. The interviewers selected the firms that they wished to interview, and, as a result, the total sample is highly weighted with manufacturing employers.

Table 4

DISTRIBUTION OF RETURNS BY INDIVIDUAL STANDARD INDUSTRIAL CLASSIFICATIONS

INDUSTRY CODE	INDUSTRY TITLE	INDIVIDUAL RETURNS	GROUPING TOTAL
01 -- 09	Agriculture, forestry and fisheries		2
07	Agricultural services, hunting and trapping	2	
10 -- 14	Mining		1
10	Metal mining	1	
15 -- 17	Contract construction		2
15	Building construction - general contractors	2	
19 -- 39	Manufacturing		230
19	Ordnance and accessories	23	
20 -- 31	Nondurable goods		
	Nondurable goods	1	
20	Food and kindred products	27	
21	Tobacco manufacturers	1	
22	Textile mill products	6	
23	Apparel and other finished products made from fabrics	3	
24	Lumber and wood products, except furniture	8	
25	Furniture and fixtures	2	
26	Paper and allied products	12	
27	Printing, publishing and allied industries	7	
28	Chemicals and allied products	4	
29	Petroleum refining and related industries	1	
30	Leather and leather products	9	

Table 4 (Continued)

32 -- 39	Durable Goods		
	Durable goods	3	
32	Stone, clay and glass products	1	
33	Primary metal industries	16	
34	Fabricated metal products	46	
35	Nonelectrical machinery	22	
36	Electrical machinery, equipment and supplies	21	
37	Transportation equipment	9	
38	Professional, scientific and controlling instruments; photographic and optical goods, watches and clocks	3	
39	Miscellaneous manufacturing industries	5	
40 -- 49	Transportation, communication, electric, gas and sanitary services		21
41	Local & suburban transit and interurban passenger transportation	4	
42	Motor freight transportation and warehousing	2	
47	Transportation services	2	
48	Communication	4	
49	Electric, gas and sanitary services	9	
50 -- 59	Wholesale and retail trade		21
	Wholesale and retail trade	1	
50	Wholesale trade	2	
52	Retail trade - building materials, hardware and farm equipment	1	
53	Retail trade - general merchandise	9	
54	Retail trade - food	6	
58	Retail trade - eating and drinking places	1	
59	Retail trade - miscellaneous retail stores	1	
60 -- 67	Finance, insurance and real estate		30
60	Banking	12	
61	Credit agencies other than banks	3	
62	Security and commodity brokers, dealers exchanges and services	3	
63	Insurance carriers	7	
64	Insurance agents, brokers and service	1	
65	Real estate	1	
66	Combinations of real estate, insurance, loans, law offices	2	
67	Holding and other investment companies	1	

Table 4 (Continued)

70 -- 89	Services		26
	Services		
70	Hotels, rooming houses, camps, and other lodging places	1	
73	Miscellaneous business services	2	
75	Automobile repair, automobile services and garages	1	
79	Amusement and recreation services, expect motion pictures	1	
80	Medical and other health services	15	
82	Educational services	2	
86	Nonprofit membership organizations	2	
89	Miscellaneous services	2	
0	Returns not codeable	2	

Table 5

Summary of Distribution of Returns
By SIC Groupings

SIC Code	Industry Title	No. of Returns	%
01 - 09	Agriculture, forestry, and fisheries	2	.6
10 - 14	Mining	1	.3
15 - 17	Contract construction	2	.6
19 - 39	Manufacturing	230	67.3
	Ordnance 23		
	Durable Goods 126		
	Nondurable Goods 81		
40 - 49	Transportation, communication, electric, gas, and sanitary services	21	6.1
50 - 59	Wholesale and retail trade	21	6.1
60 - 67	Finance, insurance and real estate	30	8.8
70 - 89	Services	26	7.6
91 - 94	Government	4	1.2
	Subtotal	337	
	Business Organizations*	3	.9
	Returns not codeable	2	.6
	TOTAL	342	100.0%

*Printing Industries of Wisconsin
Wisconsin Manufacturers' Association
Wisconsin Chamber of Commerce

Manufacturing firms in the State of Wisconsin employ approximately 28% of the work force. In the Milwaukee SMSA, manufacturing firms employ approximately 32% of the work force. The percent distribution of work force in Wisconsin and the Milwaukee SMSA are shown in Table 6.

Table 6

Percentage Distribution of Wisconsin and SMSA Work Force, June 1973

Industry	SMSA*	Wisconsin
Agriculture	1%	8%
Mining	-	-
Construction	4%	4%
Manufacturing	32%	28%
Transportation, Communication, & Public Utilities	5%	4%
Wholesale & Retail Trade	20%	15%
Finance, Insurance, & Real Estate	5%	4%
Service and Miscellaneous	15%	14%
Government	12%	15%
Other Workers	6%	8%

Total employment in SMSA in June 1973 was 636,000.
Total employment in the State of Wisconsin in June 1973 was 1,957,800.

*SMSA includes Milwaukee, Waukesha, Washington, and Ozaukee Counties.

Source: Wisconsin State Employment Service.

Limitations of the Study

The interviews in this study were carried out by at least 25 to 30 different interviewers, who were not compensated for the time and effort that they put into the interviews. The interviewers used in this study were personnel who, either were in contact with employers because of the nature of their jobs or were desirous of obtaining information from employers and increasing their contact with the world of work. The interviewers could not be controlled as

to the number or types of firms that they interviewed. Because most of the interviewers were trade and industrial coordinators who tended to visit manufacturing firms, the predominance of data regarding training programs is for manufacturing firms. The number of returns from other areas is somewhat limited. The data regarding governmental employee training programs is particularly limited to the Milwaukee area.

Because of the great number of interviewers involved, the quality of data varied greatly. Although almost all questionnaires were completed fully, there was difficulty in interpreting the answers given on many questionnaires. The predominance of Milwaukee area firms in the sample makes it difficult to distinguish variations in training program characteristics from different parts of the state.

About 2,000 employers in the State of Wisconsin employ apprentices. Some data regarding numbers of apprentices by trade are included in this study, but a detailed analysis of apprenticeship programs was not made in the present study.

A problem in the study of training programs that has been pointed out in previous studies is the difficulty in defining terms. In this study a formal, organized training program is defined as a program that has some structured instructional activities, such as lectures, programs of instruction, correspondence courses, discussion groups, etc., with definite objectives. This type of training program is distinguished from the usual on-the-job training and orientation that all employees generally receive when they start a new job.

CHAPTER III

FINDINGS

In this chapter the responses to questions from the questionnaire that can be tabulated are presented and analyzed. Data was tabulated by the six standard industrial classifications in which a reasonable number of responses were obtained and by five job categories: Administrative and Supervisory, Other Professional and Technical, Clerical, Apprentice, and Others (Production, Maintenance, etc.)

Only 14 (4%) of the employers in the sample had less than 100 employees; 129 (39.4%) had more than 500 employees.

Do you have organized, formal training programs for your employees?

As defined previously, a formal, organized training program is defined as a program that has some structured instructional activities, such as lectures, programs of instruction, correspondence courses, discussion groups, etc., with definite objectives. This type of training program is distinguished from the usual on-the-job training and orientation that all employees generally receive when they start a new job.

As shown in Table 7, 70.6% of the employers in this study had training programs in at least one of the five job categories. Wholesale and Retail Trade (40%) and Manufacturing--Nondurable (38.3%) classifications had the highest percentages of employers with no training programs. A total of 57.8% of the employers had training programs in either one, two, or three job categories. Only 6.4% of the employers had programs in four categories, and another 6.4% in five categories.

As shown in Table 8, a majority of manufacturing and wholesale and retail employers in all job categories did not sponsor training programs. Wholesale and retail firms had a lower overall proportion of training programs than any other SIC classification. A majority of transportation and utilities firms had training programs in all job classifications, except clerical.

Table 7

Percentage of Employers by SIC Classification and
By Number of Job Categories in Which Training Programs are Sponsored

	Manufacturing Nondurable	Manufacturing Durable	Constr.	Whl/Ret	Fin/Ins	Services	Total
No Training Programs	38.3%	28.9%	14.3%	40.0%	23.3%	15.4%	29.4%
Programs in One Job Category	24.6%	19.5%	14.3%	25.0%	20.0%	23.1%	21.1%
Programs in Two Job Categories	17.2%	21.4%	23.8%	25.0%	20.0%	30.8%	21.4%
Programs in Three Job Categories	9.8%	13.4%	28.5%	10.0%	33.3%	15.4%	15.3%
Programs in Four Job Categories	3.7%	8.7%	4.8%	0	3.3%	11.5%	6.4%
Programs in Five Job Categories	6.4%	8.1%	14.3%	0	0	3.8%	6.4%
	100%	100%	100%	100%	100%	100%	100%
Number of Employers in Sample	81	149	21	20	30	26	327

* Job categories are: Administrative and Supervisory, Other Professional and Technical, Clerical, Apprentice, and Other (Production, Maintenance, etc.)

In all SIC classifications the highest number of employers with training programs was in the Administrative and Supervisory categories. As shown in Table 9, a total of 46% of the employers in the sample indicated they sponsored training programs for administrative and supervisory personnel.

Only about 15% of the manufacturing firms had training programs for clerical personnel. Because of the predominance of manufacturing firms in the sample, the percentage of firms in total offering clerical training was only 21%. Fifty percent of the employers in the Finance and Insurance group had training programs for clerical personnel.

Table 8

Number of Employers with Training Programs
By Job and SIC Classification

1. Do you have organized, formal training programs for your employees?

SIC Classifications and Codes

	Ag.		Mining		Constr.		Manufacturing				Trans.		Whl/Ret		Fin/Ins		Services	
							Durable		NonDur.									
	01-09		10-14		15-17		19-39		20-31		40-49		50-59		60-67		70-89	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Administrative and Supervisory	1	1		1		2	68	93	26	40	14	5	8	12	18	12	14	12
Other Professional and Technical	1	1		1		2	61	98	3	58	10	8	5	15	14	16	13	3
Clerical	1	1		1		2	21	138	11	59	6	12	4	16	15	15	9	17
Apprentices	1	1	1		2		74	84	14	56	11	7	2	18	1	29	3	23
Other (Production, Maintenance, etc.)		2		1		2	59	99	20	51	11	8	2	18	8	21	12	14

Table 9

Percent of Employers with Training Programs
By Job Classification

Administrative and Supervisory	46%
Other Professional and Technical	35%
Clerical	21%
Apprentices	33%
Other (Production, Maintenance, etc.)	34%

About one-third of the firms sponsor training programs for technical, apprentice, and other (production, maintenance, etc.) employees. However, the proportion of firms in Manufacturing--Nondurable classification who sponsored training programs for technical or apprentice employees is significantly lower than the proportion of firms with training programs from the Manufacturing--Durable group.

What is the purpose of these training programs?

As shown in Table 10, with the exception of apprentices, the most frequently indicated purpose of training programs is upgrading. In the case of apprentices, the primary purpose is job entry.

Retraining was less frequently mentioned than job entry as the purpose of programs in all categories, except Administrative and Supervisory. The reason for this is that manufacturing firms indicated retraining as a purpose for administrative and supervisory programs more frequently than job entry.

Approximately how many employees were trained from June 1971 to June 1972 in the following training programs?

Data from these questions were tabulated, but because the data are, in most cases, incomplete, an analysis cannot be made. In many cases the number of trainees for a period of time was not available from employers, and in other cases these data were extremely difficult to obtain, because information regarding numbers of trainees was not kept in any one department. The difficulties encountered in this study in obtaining quantitative data on numbers of trainees are the same as those expressed by researchers who conducted the feasibility study previously mentioned at the University of Wisconsin.[11]

[11]Somers, op. cit.

Table 10

Number of Employers Who Indicated Various Purposes of Training Programs
By Job and SIC Classification

2. What is the purpose of these training programs?

SIC Classifications and Codes

JOB ENTRY

	Ag.	Mining	Constr.	Manufacturing		Trans.	Whl/Ret	Fin/Ins	Services	Totals
				Durable	NonDur.					
	01-09	10-14	15-17	19-39	20-31	40-49	50-59	60-67	70-89	
Administrative and Supervisory				16	7	4	6	10	5	48
Other Professional and Technical				14	2	4	5	9	11	45
Clerical				6	6	3	5	11	6	37
Apprentices			1	42	10	7	1	1	2	64
Other (Production, Maintenance, etc.)				28	15	6	2	7	8	66
										260

RETRAINING

Administrative and Supervisory				28	9	6	1	7	1	52
Other Professional and Technical				21	4	3	2	6	3	39
Clerical				11	5	2	1	3	2	26
Apprentices			1	15	1	3	1			21
Other (Production, Maintenance, etc.)				22	8	2	2	2	1	37
										175

Table 10(Continued)

UPGRADING

	Ag.	Mining	Constr.	Manufacturing		Trans.	Whl/Ret	Fin/Ins	Services	Totals
				Durable	NonDur.					
	01-09	10-14	15-17	19-39	20-31	40-49	50-59	60-67	70-89	
Administrative and Supervisory				60	25	12	7	17	13	134
Other Professional and Technical				50	8	9	5	9	12	93
Clerical		1		20	9	4	2	10	5	51
Apprentices		1	1	31	6	8	1	1	2	51
Other (Production, Maintenance, etc.)		1	1	47	16	10	2	4	7	88

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Does someone in your firm periodically review your employees' performance and discuss their training needs with them?

As shown in Table 11, a large majority of employers indicated they periodically reviewed the training needs of their employees with them in all job classifications. The great number of positive answers to this question may have resulted from the notion that an affirmative answer was expected. There was doubt expressed by some training directors as to the amount of individual reviewing of training needs actually carried out by many firms.

Could you estimate how many employees your organization might hire from the following categories from June 1972 to June 1973?

Estimates of manpower needs were not available from most employers. The data tabulated from this question have no significance, because of the small number of responses obtained. The difficulties in obtaining future employment information in this study are consistent with the results of a study previously mentioned concerning the forecasting of manpower needs that was conducted by the University of Wisconsin.[12]

Have you hired graduates or students from our VTAE District in the following categories in the past?

As shown in Table 13, the areas in which most VTAE graduates or students were hired were Clerical and Other (Production, Maintenance, etc.). About 90% of the finance and insurance firms indicated they had hired VTAE students in the clerical area. The proportion of employers that had hired VTAE graduates or students was the highest in the Service classification. A majority of Manufacturing--Durable firms had hired students from VTAE schools in the "Other" job classification.

[12]Perlman, op. cit.

Table 11

Number of Firms Who Review Their Employees' Performance and Training Needs
By Job and SIC Classifications

6. Does someone in your firm periodically review your employees' performance and discuss their training needs with them?

SIC Classifications and Codes

	Ag.		Mining		Constr.		Manufacturing				Trans.		Whl/Ret		Fin/Ins		Services	
							Durable		NonDur.									
	01-09		10-14		15-17		19-39		20-31		40-49		50-59		60-67		70-89	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
	2		1		1		86	26	46	14	9	2	11	4	25	1	18	4

If yes, at which of the following levels:

	01-09	10-14	15-17	19-39	20-31	40-49	50-59	60-67	70-89
Administrative and Supervisory	2	1		62	36	8	9	25	16
Other Professional and Technical	1	1		60	24	8	5	11	13
Clerical	1			53	25	8	7	24	15
Apprentices	1		1	48	10	5		2	3
Other (Production, Maintenance, etc.)				68	33	8	4	12	13

Table 12

Number of Employers Who Have Hired VTAE Graduates By Job and SIC Classifications

8. Have you hired graduates or students from our VTAE District in the following categories in the past?

SIC Classifications and Codes

	Ag.		Mining		Constr.		Manufacturing				Trans.		Whl/Ret		Fin/Ins		Services	
							Durable		NonDur.									
	01-09		10-14		15-17		19-39		20-31		40-49		50-59		60-67		70-89	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Administrative and Supervisory		2		1		1	18	92	9	50	1	10	5	9	7	19	2	20
Other Professional and Technical		2		1		1	46	65	19	40	3	8	3	11	7	19	15	7
Clerical		2		1		1	57	57	27	34	7	4	5	11	23	3	15	7
Apprentices		2	1			1	39	69	7	51	1	10	1	14	1	25	4	18
Other (Production, Maintenance, etc.)		2	1		1		66	45	21	38	6	6	1	13	7	19	10	12

Table 13

Percent of Employers Who Have Hired VTAE Graduates By Job Classification

Administrative and Supervisory	17%
Other Professional and Technical	38%
Clerical	51%
Apprentices	22%
Other (Production, Maintenance, etc.)	46%

What is your general opinion of the quality of preparation of VTAE graduates?

As shown in Table 14, 170 of 333 firms were able to give ratings of the quality of students employed from VTAE schools. A total of 94% of the employers rated these former VTAE students as either Excellent or Good in their preparation for a job.

Table 14

Ratings of Former VTAE Students By Employers

	Excellent	Good	Fair	Poor	Unsatisfactory
Number of Employers	53	107	9	1	0
Percent	31.2%	62.9%	5.3%	.6%	0

Relationship of Training Programs To Size of Employer

As shown in Table 15, about 60% of the firms in the sample for this study had more than 250 employees. Almost 40% had more than 500 employees. An effort was made to analyze the responses of employers to the questions previously discussed to indicate whether there were any differences between the responses of employers of different sizes.

Table 15

Percentage Distribution of Sample By Number of Employees

Number of Employees	Less Than 100	100-249	250-499	500+	Unknown
Percent	4.3%	34.3%	21.1%	39.4%	.9%
Number	(14)	(112)	(69)	(129)	(3)

Generally, as firms are larger in size, there is increased offering of training for all categories of personnel, except in the Wholesale/Retail Trades. In that group emphasis drops off as firms get larger, leaving more training time for clerical, administrative, and other technical jobs in small companies.

In the Nondurable Goods Manufacturing area, larger companies seem to put more emphasis on providing training programs in all categories. Firms of 500 employees or more give greatest attention to training for all categories, except clerical employees. However, there is some slight increase in emphasis in clerical staff but not as great as in other areas.

In Durable Goods Manufacturing similar emphasis patterns are evident with much greater concern of clerical training than in Nondurable Goods.

Finance, Insurance, and Real Estate firms provide training for administration, other, and technical people and clerical employees with increased emphasis in these areas in larger companies. Medium-sized firms (250 to 449 employees) provide less than their smaller or larger counterparts.

Returns in Transportation and Communication reflect steady or slightly increased emphasis on training as firms get bigger. This is true for all but the "Clerical" and "Other" employees.

In Service firms and agencies the pattern of increased emphasis on training holds true, except in "Apprentice" and "Other" areas. In these two groups of employees, there is an apparent but slight decrease in emphasis on medium-sized organizations.

In Health Related service organizations the decrease in emphasis on training in medium-sized firms is quite apparent, with a marked increase on training in each category for firms of more than 500 employees.

Needs for training programs, as expressed in responses by company size and SIC classification, were summarized as follows:

Manufacturing--Nondurable Goods. In this portion of the manufacturing SIC group, there appears to be greater interest by the smaller firms for instruction related to good management, supervisory techniques, and industrial engineering and systems engineering areas.

Coop programs appear frequently in the replies from all sizes of companies. They are all interested in them.

Medium-sized firms express concern for improving their own technical operations, and in the improved utilization of human resources. Small companies, on the other hand, express needs for instruction and training in the low-level technical skill areas peculiar to their own industry.

Manufacturing--Durable Goods. Companies of all sizes in this SIC group express needs for help in the OSHA and safety areas and in supervisory management.

Firms in the small category (100-249 employees) reflect needs for specialized instruction in their specialty areas, such as welding, machine shop operations, and automatic screw machine operation. This group reflects the most interest in having VTAE instructors teach in-plant at their firms.

Medium-sized firms have heaviest needs in the specialized skills areas. Larger companies reflect these needs plus some that do not appear readily in the prior groupings. There is expressed interest in the broad areas of personnel relations and manpower resource planning and development. Requests for course instruction in sensitivity, communications, sociology, psychology, speech, writing, listening, all appear in this grouping.

The larger companies are also more willing to provide summer work for faculty from their VTAE Districts. Large companies also show some interest in having VTAE courses taught in their plants.

All these firms show interest in courses of a technical nature, directly related to their own endeavors. No further patterns appear other than those shown in other analyses of this information.

Transportation, Communication, Electric, Gas, and Sanitary Services. As these firms are larger, they seem to have need for a wider variety of specific courses related to their own specialization.

The larger the firm in this grouping, the greater interest there is expressed in safety-related courses and in methods engineering subjects.

Supervisory instruction is a need expressed to companies in the small and the large categories.

Wholesale and Retail Trade. No needs are expressed by firms in the medium-sized group.

Firms with less than 100 employees ask for sales courses, human relations, and key skills instruction used in operating their own businesses (cash register, sales clerking).

Small companies (100-249 employees) ask for the greatest variety of courses, including their key skills, theoretical courses (merchandising, salesmanship, planning, organizing). They also request instruction in some of the newer technologies, including data processing and time/motion study.

Larger firms seem to be more concerned with improving their own managerial operations, as reflected in expressions of interest in supervisory instruction, delegation, and financial management.

Finance, Insurance, and Real Estate. Based on these returns, as a firm gets larger, there appears to be increased need for more complex, sophisticated training. Small companies, for example, are interested in typing, shorthand; larger ones request help in computer training and MTST instruction.

Companies of all sizes in this grouping expressed interest in coop programs, but this interest is especially evident in the replies from firms in the middle-sized group.

Operational courses, specific to their businesses, seem to be the prime needs of the smaller firms. Larger companies ask for broader, more comprehensive instruction.

Middle-sized companies ask for associate degree program to fillI their needs, more than any of the others.

Services--Health Related. As health-related agencies get larger, their needs for technical instruction increase. These needs appear as increased expressions of needs for training in paramedical areas, such as lab technicians, LPN training, and those other technical skill areas peculiar to health care.

There appear to be needs in all sized companies for nursing in-service programming, medication instruction, housekeeping training, and supervisory training.

Coop programs are requested in all companies' groupings, except those in the "less than 100" group.

Human relations instruction is requested by the larger agencies, while smaller ones seem to be needing training in basic skills (i.e., telephone use in business).

Services--Nonhealth Related. Nonhealth-related agencies ask for instruction in areas related to and involved with computers.

Medium and large-sized agencies express interest in having supervisory instruction.

There seems to be greater emphasis on need for help in basic personal areas (grooming, interpersonal relations, dress) in the smaller firms.

CHAPTER IV

ANALYSIS OF TRAINING PROGRAMS OF WISCONSIN EMPLOYERS

In this chapter the overall general analysis of training programs is made. The analyses were made by training directors from business and industry.

Manufacturing - Durable Goods

The following analysis was made to responses to Question 4: What training programs are conducted using classrooms off your premises and/or instructors who are not full-time employees of your organization? What schools or firms are used for these training programs?

One hundred and ten respondents offered information in answer to the question.

Manufacturers of durable goods in the state seem to depend heavily on the technical schools for their apprentice training. This was the largest area of response in this question.

Generally, there is a state-wide consistency in use of the University for nontechnical and clerical training, management education, and engineering. In areas where these organizations exist, employers' associations and manufacturers' associations provide management, supervision, and safety instruction used by the firms nearby.

Next to apprentice programs, supervisory instruction is the most widely used training program in the state. Fifteen percent of respondents mentioned this area of instruction.

Welding and machinist trades are most frequently mentioned as specific areas of formal instruction carried out.

Durable goods firms appear to make liberal use of an educational assistance or reimbursement program. Participation is good, and the respondents include it regularly as a program they use throughout the year.

From the replies, it appears that durable goods manufacturers use universities for courses of a theoretical nature and for management and supervisory instruction. Technical schools are looked to for the basic vocational, trades, and practical skills in the operation of these firms.

Supervisory instruction is widespread throughout the state. It is of varying lengths and types, taught by university people and by outside consultants. The group at which it is usually directed includes foremen and other plant supervisory personnel.

Data processing instruction is an active program area taught exclusively by IBM personnel, according to these replies.

There appears to be no other recognizable patterns of course work in these replies.

Description of current training programs:

About 1/3 of the respondents (47) replied to this question.

The most frequent replies fell into three groups: Supervisory instruction, welding, and safety instruction.

Internally originated programming seems to center around supervisory instruction for initial pre-service preparation. Welding instruction and other trade skill instruction appears to be mainly used for upgrading and internal retraining, instead of basic skills instruction.

Upgrading and retraining are frequent in the trades, and special procedures peculiar to that plant or industry are taught in companies throughout the state.

Students are secured from a wide variety of sources and by varied methods. Posting of jobs and courses is frequently used.

Supervisory selection, too, is a heavily used method to get enrollees.

These replies reflect extensive internal technical instruction and supervisory training in durable goods firms throughout Wisconsin.

Have there been major changes in your training programs?

Fifty-six of the respondents provided useful information in this category.

There appears to be a steady increase in focus on supervisory pre-service training in the durable goods firms of Wisconsin. Such an emphasis is particularly noticeable since 1970.

Similar increased activity and emphasis occurs in safety directed training and the use of management development training.

Firms reflect an increase in apprenticeship programs, too, even though three companies stated they dropped this program in recent years. Apprenticeship directors were appointed in three firms, as further evidence of commitment of effort and resources to the apprentice programs.

Where cutbacks in training activity occurred, consistently the reasons given were economic.

There appears to be an increase in up-dating training and instruction, precipitated and required by design changes in each plant and the need to retrain on new replacement equipment and obsolete procedures.

An interesting innovation mentioned occasionally is the use of rapid reading courses for various levels of management; and the introduction of foreign language courses in those firms which have European contracts and subsidiary activities.

There has been a recognition for and effort to incorporate good measurable training technique. This results in less hours spent in teaching face to face, an increased use of visual and aural media for basic instruction, and the introduction of self-teaching devices, such as programmed instruction.

Where cutbacks in staff and training activity occurred, there is movement to use existing VTAE and university courses to carry out the teaching requirements.

Teaching of metric system is new in this category.

The returns reflect an increased concern and emphasis on human relations course work in recent years. This shows up as sensitivity training, management, interviewing, discipline, communications, and similar areas.

What new programs or courses do you think would be beneficial to your company?

Of the 149 respondents tabulated, 102 provided suggestions in reply to this question.

Most frequent suggestions offered included:

Automatic screw machine program
Fork-lift driving
Welding
Maintenance training for on-line equipment
Industrial Safety

There is a strong suggestion that VTAE courses in-plant be pursued. This would mean teachers and courses are on-sight, reducing need for travel to VTAE schools in the District.

Suggestions included a wide series of recommended courses in nontechnical areas, including management, business basics, economics, trends in industry, work simplification, listening, reading, speech, group therapy, and sociology of change.

Suggested, too, was that VTAE instructors come to plants to help out. This suggestion included a strong recommendation that summer internships be instituted for the VTAE teachers. Included would be use of these teachers to help design in-plant training, much as a consultant would.

"Get teachers from industry," was another recommendation, suggesting that perhaps present teachers needed a more practical orientation.

Manufacturing - Nondurable Goods

Respondents in this section seem to rely heavily on outside agencies for their training in the areas of supervision and middle management development. These two areas are mentioned most frequently by the firms providing information in these categories.

Where technical courses are mentioned, welding, cost accounting, and safety training appear often among the various course content listings. Apprenticeship activity is carried on extensively by these companies. Outside agencies are also used for clerical training programs, including shorthand, typing, and other secretarial skills.

The University of Wisconsin, including its various branches and the Extension Division, is included most often as the source of the outside training carried on in these firms. Management and supervision are most frequently indicated as the university-originated courses used.

Technical schools are relied upon heavily in these companies as sources of technical job-related training. Apprenticeship programs in various technical schools seem to be quite active.

Also mentioned regularly are training programs offered by Employers' Association and the Dale Carnegie Associates' activities in public speaking and public relations.

About one-third of the respondents provided useful information about the changes that have taken place in their training activities since 1966.

Generally, there has been a steady increase in both the emphasis on the value of training and on the kinds of activity carried out. Where on-the-job training existed, internal training programs have developed with increased quality and sophistication. This results in better trained personnel, according to respondents.

As training takes on increased importance, there is commensurate increase in planned training for future jobs in this and other firms. This shows up as job upgrading, an increase in tuition reimbursement and other educational assistance programs, and introduction of career planning activity within the company itself.

Many responding power industry representatives mentioned they use courses offered by private manufacturers, such as Allis Chalmers or Westinghouse. These special courses are on specific, technical subjects; i.e., "The Use of Regulators," etc.

In the telephone industry group, only General Telephone and Electronics seemed to use off-premise training, and their use was limited. One GTE division said they sent employees to a private technical institute for courses leading to an FCC Radio License. All of Wisconsin Telephone's training is done in-house or by the company at a training center.

Some smaller companies in this SIC group used the technical training offered at local VTAE centers and private technical institutes. Examples would be school bus companies, who use safety training, and the Milwaukee Road, which uses Milwaukee VTAE for apprentice training in all crafts.

In the area of Management/Supervisory training and development, respondents said they made use of University of Wisconsin-Extension courses and other universities' management seminars and courses.

Generally, the large companies are providing their own training programs. The nature of large, technically oriented businesses do require specialized and specific instruction. Only some of the businesses returning questionnaires indicated they used VTAE instruction.

Description of current training programs:

Few companies (5) responded to this question. The answers show a variety of courses offered in some establishments. Again, large concerns (power and light companies, telephone companies, etc.) provide their own craft/technical training and management/supervisory training on a continuing basis.

Though the data available was scattered, the courses listed were localized offerings for some training needs. For instance, one school bus company gave bus driving instruction.

When considering "Trainee Characteristics," the average age of trainees was about 31, and most of the trainees were high school graduates.

More recent developments in training emphasis include use of instructional technology of all kinds to assist the training specialist in his job, and a rapid increase of management and supervision-directed training and development programs carried out within the company's walls. More recently, behaviorist-related courses (such as motivation, job enrichment, management-by-objectives) appear as examples of the increased emphasis.

A wide variety of suggestions and replies for course/program ideas makes it difficult to see any clear patterns. Company suggestions generally are varied and reflect their own individual needs. And this is probably as it should be.

There appears to be an underlying suggestion that management people should develop themselves more broadly to be better useful to the firm. Suggestions include EDP training for accountants and study of trends and business analyses for middle managers--all to help them understand better the growth of their own firms and the development of their industry as a whole.

The passage of safety requirements on the national level perhaps pointed many respondents toward the need for more safety and first-aid-directed programming to help them comply with OSHA requirements. Where specialized safety staff is not available, this would be helpful to assure trained people are at hand when an emergency arises. Such internal specialists can also serve as consultants and trouble-shooters when safety problems arise within the plant.

Finance, Insurance, and Real Estate

Virtually all members of this group make good use of the colleges, universities, and technical schools in their areas, as well as the institutional courses set up by the associations of the specific financial industries. All of the banks and savings and loan corporations, for example, make AIB (American Institute of Banking) courses available to their employees, and about 75% make use of the graduate schools of banking of the University of Wisconsin--Madison, Rutgers, and Stonier School, while insurance companies, investment corporations, as well as banks have tuition refund programs which

encourage their people to pursue courses at such schools as the University of Wisconsin--Milwaukee, Marquette, University of Wisconsin--Madison, Milwaukee Area Technical College, and the various Wisconsin universities in the locality of those companies based outside of the Milwaukee area.

About one-third of all the respondents in the group make use of the various seminars offered regularly by the major schools, UW-M, UW-Madison, and Marquette. Apparently the courses fall into both the management and technical areas.

Other schools mentioned are scattered throughout the state:

North Central Technical Institute (CPCU & IIA courses)
MSOE (Savings & Loan Institute)
University of Colorado (Trust School)
Blackhawk Technical (AIB courses, Accounting, Secretarial Skills)
Spencerian (Secretarial Skills)
Eau Claire Technical Institute
VTAE - Stevens Point
Employers Association

A few companies mentioned correspondence courses, such as those provided by the New York Institute of Finance, the NASD (National Association of Security Dealers) and the SIA (Security Industry Association).

As far as in-house training programs are concerned, it seems that most of the companies in the group feel the necessity for certain job entry and upgrading programs and a certain amount of on-the-job training not covered in the job entry and upgrading categories. Ninety percent of the companies offer either no in-house training (these are a small minority) or less than five courses or programs. The average is about three (of the remaining 10% of the companies, however, one reports as many as 18 programs.) Teller training is virtually standard for banks, with a requirement of high school graduation and an average age of "student" of 20. The courses run from about 60 to as high as 6,400 student course hours in the smaller and larger companies, respectively. The length of and enrollment for other courses vary similarly

among companies. In addition, many of the companies in the group provide sales training, secretarial training, management (all levels, but usually excluding top management) training, clerical and secretarial training, and a small variety of other courses required to satisfy needs. It appears that the average age of most trainees in clerical courses is about 20-22, for supervisory courses about 27-30, and for managerial courses about 35.

Most companies apparently found educational opportunities quite adequate in the schools in their locales. Five respondents, however, agreed to consider a Coop program if it were made available (some already subscribe to a high school coop arrangement). There was no real general interest shown in any other courses, however. Each of the following suggestions was listed only once.

Grooming
Summer evening courses
Word Processing (MTST)
Clerical (Machine Transcription)
Report Writing
Telephone Techniques
Personality and Attitude
Refresher Typing

Refresher Shorthand, English (spelling, punctuation, and grammar), and Motivation to Work, each were mentioned twice, as was a two-year Associate Program in Insurance.

Transportation, Communication, Electric, Gas, and Sanitary Services

Eleven of the questionnaires that were completed mentioned training that was done either off-premise or by non-company trainers.

The Power Company group made more responses (7) than any other group. Some companies in the power industry use vocational, technical, and adult education for lineman apprentice training, welding, and technical refresher courses. This group also makes some use of the apprentice training offered by private technical institutes. However, large companies, such as Wisconsin Electric, provide training by their own staff.

What new programs or courses do you think would be beneficial to your company?

Many of the companies who returned questionnaires had no suggestions for courses or programs which would be beneficial. However, some companies had many suggestions, but the content of the courses varies widely. The following is a list of those suggestions:

Firefighting
Human Relations (2 requests)
Personal Habits
Appliance Service and Repair
Use of Survey Equipment
Drafting
Construction Inspection
Field Report Preparation
Computer Technology (to be offered in Electronics courses)
First Aid
Child Behavior Problems and How to Handle Them
Supervisory Training (2 requests)
Work Simplification
Instructor Training

The suggestions for first aid training and firefighting might possibly be related to the requirements made necessary by the Occupational Safety and Health Act.

Two questionnaires said, in effect, "If we could have specialized instruction available at our many locations (cities), we would be happy to plan this with you."

Wholesale and Retail Trade

What training programs are conducted using classrooms off your premises and/or instructors who are not full-time employees of your organization? What schools or firms are used for these training programs?

Responses to the 20 returns are as follows: No answers, 3; No outside programs or trainers, 10; Outside sources used, 7.

Sixty-five percent of the firms do not use any external resources, while the remaining 35% used the following:

1. First Aid courses conducted by local Sheriff's Department. (Said action probably motivated by OSHA, Occupational Safety and Health Act, inasmuch as the Act requires firms to meet many federal standards relating to the safety and good health of the employees and the firms' responsibilities thereof.)

2. Retail selling courses through a technical institution.

3. Meat merchandising training supplied by a large wholesale food firm.

4. Key punch courses through VTAE in Marshfield.

5. Sales training seminars through VTAE Districts.

6. Various types of administrative and supervisory courses from the University of Wisconsin.

7. Manufacturers product information courses in conjunction with the sponsoring companies of the product.

8. Advanced data systems programs through IBM Corporation.

9. Management development programs, American Management Association.

10. Supermarket institutes through various national chains.

11. Management development programs using individual psychologists

&

12. and/or management consultants.

Five of the firms in the 35% group used only one outside resource, while the other two used several external sources. Of these two firms, one used three outside sources; the other used four, representing a 28% factor in firms using more than one outside influence in training.

Take note that only two of the seven firms in the 35% group took advantage of VTAE.

Description of current training programs conducted by the establishment:

Of the 20 questionnaires reviewed, these statistics were reflected: 8 made no reply; 6 did not receive or did not return this data; 6 responded.

Discounting the six returns that seemingly did not contain this question, my statement will, therefore, overview a 43% response. The time period selected for research was June 1971 through June 1972 and are identified below.

Selling techniques and related training programs
Management development courses
Food service training
Service station training
Mechanical (auto) training
Shrinkage control
Merchandising courses

Only two establishments required some type of job entry training to be administered to all employees regardless of level of entry.

One firm reported a continuing weekly half-hour course for all of their sales people for the purpose of upgrading.

It was evident that most of the firms spent a great deal more of their training dollar on upward mobility for a smaller group of employees than investing in programs that could lead to the strengthening of the employees in the majority job categories. Most of the training was in the management development areas ranging in the following time spans during the year:

1. 3 sessions @ one hour each, totaling 3 hours annually.

2. 6 to 8 sessions @ one hour each, totaling 6 to 8 hours annually.

3. 8 day-long sessions (8 hours each) for a 64-hour annual total.

4. 10 sessions @ 2 hours each, totaling 20 hours per year.

5. 3 sessions @ 4 hours each for a total of 12 hours per year.

6. 12 sessions @ 2 to 3 hours each for a 24- to 36-hour yearly total.

7. 24 sessions @ 2½ hours each, equalling 60 hours yearly.

This is a combined total of 189 to 203 training hours per year.

All the programs described, except two, were held inside the establishment's physical plants.

Trainees were selected through job posting, interviews conducted by the Personnel Departments, performance records, tests conducted by the Personnel Departments, and/or some type of seniority system. Most of those trained were degreed persons between the ages of 22 and 30 years. A smaller number of those trained were employees with long work experience records (5 to 15 years) and between the ages of 30 and 40 years.

Many of the establishments hire a very youthful employee (16 to 21), and special job entry training is administered by most of the responding firms.

Three of the training programs were described as on-the-job training: Food Service, Service Station, and Auto Mechanics.

Following is an analysis of Question 10: What new programs or courses do you think would be beneficial to your company? Cooperative programs, internships, summer work for students or faculty, VTAE instructors for your training programs, business, industry and labor instructors for VTAE courses, specific courses or groups of courses?

Responses to the 20 returns are as follows: No answers, 7; No suggestions, 1; Answered that they did not feel their firms could relate to said question, 3; Responses detailed below representing a 45% reply, 9.

The firms did not advance a great amount of data geared to the specifics of the question; i.e., cooperative programs, internships, summer work for students or faculty, etc. Moreover, the replies were very brief and inexacting.

One-third of the firms indicated the wish for more courses in sales training techniques. They described the need for the very basics in sales development to the refining and improving of selling skills.

Management strengthening courses highlighting financial aspects, principles of supervision, planning and motivation were suggested. Other new programs mentioned were:

Data Processing courses
Time and Motion Study
Complete Food Service
Cashier and Checker Preparation
OSHA Requirements
Driveway Salesmen Training
Service Station Attendants

One firm did express an interest in cooperative programs but did not elaborate on the subject.

It was evident that training from without was the exception, rather than the usual, with this group of employers; and, even on an overall basis, internal training was generally done in small and uneven degrees.

Overview:

Only six of the 20 firms had part- or full-time personnel on its staffs specifically geared to company training programs. Of these six firms, only three seemed to have adequate training staffs for the number of employees to be served. This would represent only a 15% to 30% coverage in the training area. I am sure these figures would compare poorly to the training figures in industry or some other types of businesses.

There was little evidence of any company providing a wide range of training programs to stimulate, motivate and/or strengthen the employee achievements at all levels. Sporadic programming in limited doses was administered upon job entrance, but to a much greater degree you find the training pointed toward the lower to middle management levels.

A very small amount of on-the-job training was reflected, and it appeared that there was also very little hiring from among the graduates or students in the VTAE Districts. However,

where they were used, the general comments were favorable to VTAE. In fact, there was only one unsatisfactory reply relating to a bad experience in a student of residential design.

An awareness to the value of good training programs was cited in the fact that training had made upward strides since 1970 in most of the establishments. Consider that one-third of the firms stated that more training was being done in the 1971-72 period than in the period from 1966 to 1970. This was a 40% improvement in training emphasis and a sign of significant importance to those in the training field.

The fact that the firms have requested some new programs is encouraging, as it points up their willingness to use outside sources to meet their training needs. There are definite signs of a continuing effort and desire to provide broader and better training coverage within the wholesale and retail trade groups. It is therefore vital that the professional trainer keep abreast and attempt to support and develop sound training programs with and for the retail groups.

Services

Of the 26 returns available in this SIC category, 15 or 58% are from hospitals, clinics, and medical and care agencies. The remainder are from various other unrelated service organizations. Because of the predominance of health care related responses, it seems best to examine information in two groupings: Health care related and nonhealth care related. Analyses are provided separately for each grouping.

Health Care Related Agencies:

These agencies make use of a wide variety of courses and course providers as sources of education and training from outside their organizations.

The universities, colleges, and technical schools are used largely as sources of training for technicians and other health professionals. While it is to be expected that schools provide graduates who apply for, and receive employment in, these health care related agencies, there is some evidence of the institution first hiring an employee and then sending that person to school to learn his job at the institution.

This is true for nurse aides, respiratory or inhalation therapy, medical technology, and medical record transcription.

An extensive list of course work used by these agencies reveals four apparent groupings: first, a segment of the outside instruction is used to teach supervisory techniques, management, administration; second, a large group of courses and learning activities designed to retrain and upgrade registered nursing personnel in job-related skills; third, paraprofessional and service personnel training; and fourth, general instruction applicable to all, such as fire safety, public speaking, human relations, and communications.

Frequency of subject matter reveals only two repeated categories of instruction: management development and supervisory skills.

Training programs for nursing personnel seem to be designed to achieve two learning objectives: one, to update practicing nurses on new methods, procedures, and emphases (i.e., geriatric nursing, care of the dying) and instruction in special procedures, approaches, or techniques designed to upgrade the nurse for service in her parent institution (i.e., cancer nursing, pediatric nursing, coronary disease, diabetes).

There seems to be apparent an increasing use of outside courses for management and supervisory training for nursing personnel. This is suggested by the number of management-related courses offered and attended by nurses in the sampled organizations.

Paraprofessional-directed courses reflect two kinds of outside educational programs in use: one, pre-service training for technicians; and, two, upgrading training for those presently employed in highly technical and rapidly changing areas (i.e., radiology, medical technology, respiratory therapy, physical medicine, nuclear medicine).

While use of outside courses and organizations is widespread in the health-related group, no patterns of use or course type arise other than those indicated already.

Regarding major changes in training programs, several patterns or trends appear, based on replies submitted.

While early training efforts were directed toward nursing personnel, more recent emphasis has broadened to include other patient care involved personnel in these institutions. There seems to be increasing emphasis on broadening of training activity to include all areas of the institution from administration down through managers, supervisors, and employees on all levels and in all positions. Greatest emphasis seems to be on care-related employees, but the other areas of service are beginning to have their training needs recognized and fulfilled.

Training in health care related organizations has increased since 1966 for two stated reasons: increased staff necessitated by expansion of physical plants, and increasing complexity of technology and new equipment.

Where overall increase of training has taken place, decreases are evident in those areas where this instruction could and is being carried out by outside organizations. A number of agencies indicated they dropped internal training programs for unit/ward clerks, nurse aides, and inhalation therapists when technical school began regular, formal programs in these areas.

Again, a wide variety of types of courses appears. The majority of this training is for upgrading purposes, especially in management, supervision, and Licensed Practical Nurse courses and Nurse Aide courses. Upgrading and introduction of new procedures for nursing personnel seems to be a constant, regular training activity. Nearly all these organizations carry out newly employed nurse orientation programs of varying lengths. In addition, the responses indicate most institutions provide instruction in medications, intravenous therapy, body mechanics, drug abuse, all for nursing employees.

Internal programs reflect a significant number of in-house management and supervisory training programs for managers, supervisors (including nursing) and administrators.

Food service programs and general services (housekeeping) are two frequently mentioned areas.

Types, frequency, or length of these programs varies.

Respondents to the question, "What new programs or courses do you think would be beneficial to your company?" indicated an extensive list of course topics and programs that would be of use to them. Only four subject areas were mentioned frequently enough to warrant inclusion. These were:

Pre-service nurse aide training
Housekeeping
Inhalation therapy
Medications course for Licensed Practical Nurse

Others mentioned topics that appear to be directed toward meeting individual needs, and no further patterns are evident. Several of the unusual or extraordinary areas suggested are environmental technician, hospital electrical safety, insurance clerks and secretaries, security guard, and hospital electronics technician. Others mentioned suggested training for the usual, traditional positions in these institutions, where programs or course training is already available widely throughout the State.

Three suggestions were made dealing with operational or policy matters:

Cooperative programs and summer employment for VTAE faculty
Shared use of facilities
Reduce clerical instruction from a year to one semester

Respondents to nonhealth related services indicated they used external sources of education primarily for specialized training related directly to their own operations. Thus, a hotel uses innkeeper training given by the parent organization, clothing dry cleaners use workshop programs provided by International Fabric Care Institute.

Because of a limited sample, the only identifiable trends since 1970 were noted by this small sample. These included establishment of a procedure manual as a basis for training programs. Another idea indicated introduction of many new creative ideas which required integration through training. Another respondent indicated that economic conditions did not warrant changes in training activity, since few people were changing jobs.

Most of the respondents carry on some kind of internal management development activity. Usually this is directed to management in their own field. However, some use of outside source material to support the internal instruction is evident. American Management Association materials are mentioned. On-the-job training and weekly meeting are other methods used to execute this instruction.

Similar methods are used for supervisory instruction, although these courses seem to be more structured and directly involved with company operations.

Other types of internal program mentioned all are orientation and upgrade instruction for specialized personnel (sales persons, waitresses, maids, maintenance people) in the particular service industry.

The following statements were made regarding responses to Question 10: "What new programs or courses do you think would be beneficial to your company?":

No patterns of courses or subjects appear, due to small sample. Suggestions include:

Automotive
Salesmanship
Supervisory training (mentioned twice)
Key punch operator

One respondent suggested course work be developed to teach grooming and etiquette, as required in his service activities. Two respondents suggested interpersonal relations as useful courses.

One reply indicated it was important to develop positive and health attitudes and respect for values, as underlying necessities.

The several respondents expressed interest in employing faculty and students during summer months.

One thought it would be useful to place students in part-time employment in fields of their major study.

An intern program was suggested by another.

Apprenticeships and Other Labor-Related Programs

As shown in Table 16, there were 7,419 active apprentices in the State of Wisconsin as of June 1973. They are distributed as follows:

Construction Trades	38.7%	(2,871)
Industrial Trades	30.6%	(2,268)
Service Trades	24.1%	(1,787)
Graphic Arts Trades	6.6%	(493)

Apprentices are employed by approximately 2,000 employers in the State of Wisconsin. A breakdown of apprenticeships by approximately 88 different trades is shown in Table 17.

Table 16

Number of Apprentices in the State of Wisconsin June 1973

Active indentures at the beginning of June		7,333
New approvals during June		265
	Total	7,598
Apprenticeships completed during June		103
Apprenticeships cancelled during June		67
Apprenticeships suspended during June		9
	Total	179
Total Apprentices through June		7,419

Source: "Division of Apprenticeship and Training," Department of Industry, Labor and Human Relations, Madison, Wisconsin.

Table 17

Number of Apprentices by Trade
June 1973

TRADE	June 1, 1973	New	Comp	Canc	Susp	Total
CONSTRUCTION TRADES Totals	2,866	88	60	19	4	2,871
Bricklayer/Mason	138	4	5	1		136
Carpenter	538	11	20	10		519
Electrician	437	21	5	2	2	449
Painter/Decorator	155	5	3			157
Plasterer	8		1			7
Plumber	670	27	12	5	1	679
Iron Worker	88	3	1			90
Sheet Metal Worker	315	1	3			313
Steamfitter	176	7	4		1	178
Glazier	16					16
Lather	11					11
Operating Engineers	63			1		62
Asbestos Worker	28					28
Cement Finishers	39	2				41
Roofer	11	5	3			13
Mo Basin Boilermaker	4					4
Mo Valley Lineman	60	2	3			59
Sprinkler Fitters	105					105
Miscellaneous	5					5
INDUSTRIAL TRADES Totals	2,218	78	19	9		2,268
Cheesemaker	10					10
Instrument Repair	22					22
Drafting	76	3	1			78
Electrical Maintenance	237	5	1			241
Mechanical Maintenance	577	16	5	1		587
Machine Adjustor	19	2				21
Machinists	445	14	5	2		452
Foundry Trades	55	5	1			59
Patternmakers	51					51
Fabricators	61	1	1	1		60
Tool and Die Trades	494	30	4	1		519
Tool Designers	8					8
Tool Grinder	5					5
Welders	45			1		44
Power Engineer	32	1				33
Butter Maker	3	1				4
Lumber Grader	7					7
Dry Kiln Operator	2					2
Machine Erector	7					7
Electro Plater	4					4
Lift Truck Mechanic	8			2		6
Heat Treater	4					4
Metal Spinner	6					6
Metal Polisher	3					3
Miscellaneous	31		1	1		29

Table 17 (Continued)

TRADE	June 1, 1973	New	Comp	Canc	Susp	Total
SERVICE TRADES						
Totals	1,744	94	15	32	4	1,787
Auto Body Repair	97	4		4		97
Auto Mechanic	172	10	3	4		175
Radio & TV Repair	76	4		1	1	78
Barber	165	16	1			180
Appliance Repair	65	6				71
Cosmetology	158	11		4		165
Equipment Mechanic	39	2	1			40
Communications Lineman	79	1				80
Electric Lineman	125	2	2	1		124
Butcher	133	4	1	1		135
Cook	107	1	2	7		99
Dental Technician	19	3				22
Optical Technician	43	3		2		44
Shoe Repair	1					1
Watchmaker	26	2		1		27
Surveyor	16	1				17
Business Machine Repair	46	3		1		48
Firefighter	48	7				55
Baker	26	1	1	2		24
Small Engine Repair	26			1		25
Locksmith	7					7
Photographer	14					14
Musical Instrument Repair	7	1				8
Feedmill Operator	8		1			7
Jeweler	2	1				3
Computer Programmer	4					4
Protective Signal Person	5					5
Scale Mechanic	6					6
Medical Assistant	14					14
Day Care Teacher	69	2		2	2	67
Health Aide	33	3				36
Truck Mechanic	53	4	1	1	1	54
Heavy Duty Equipment Mechanic	12		1			11
Water Plant Operator	13	1				14
Miscellaneous	30	1	1			30
GRAPHIC ARTS TRADES						
Totals	505	5	9	7	1	493
Composition	104			3		101
Preparatory	189		3	1		185
Press	157		2	3	1	151
Finishing	55	5	4			56

Source: "Division of Apprenticeship and Training," Department of Industry, Labor and Human Relations, Madison, Wisconsin.

Milwaukee area breakdown of approximately 33 apprentice trades as of June 1973 is shown in Table 18. The 2,366 apprenticeships in the Milwaukee area represent 31.9% of the apprentices in the State of Wisconsin as of June 1973. These apprentices were employed by approximately 600 firms in the Milwaukee area.

Table 18

Milwaukee Area Apprenticeship Activity
From May 1, 1973, to June 1, 1973

		Active Contracts	Activity				Active Contracts
			Comp.	Canc.	Susp.	New	
METAL TRADES	(Total)	754	16	4	4	24	754
Draftsmen		44	2	0	0	0	42
Electricians (Ind'l. & Maint.)		71	2	1	0	4	72
Machinists		215	9	2	1	6	209
Molders		19	0	1	0	0	18
Patternmakers		17	0	0	0	0	17
Sheet Metal (Ind'l.)		18	0	0	2	0	16
Tool & Die Makers		241	3	0	1	10	247
Maintenance (Except Elect.)		84	0	0	0	4	88
Miscellaneous		45	0	0	0	0	45
BUILDING TRADES	(Total)	1,027	51	10	0	23	989
Bricklayers		41	0	2	0	0	39
Carpenters		226	0	0	0	0	226
Electricians		158	3	0	0	10	165
Iron Workers		67	0	1	0	0	66
Operating Engineers		70	7	2	0	1	62
Painters		61	0	1	0	0	60
Plumbers		118	9	0	0	4	113
Sheet Metal		125	2	1	0	3	125
Sprinkler Fitters		21	1	1	0	0	19
Steamfitters		77	21	1	0	3	58
Miscellaneous		63	8	1	0	2	56

Table 18 (Continued)

		Active Contracts	Activity				Active Contracts
			Comp.	Canc.	Susp.	New	
PRINTING TRADES	(Total)	201	7	0	4	6	196
Compositor		35	0	0	0	0	35
Lithographers		93	1	0	4	5	93
Photoengravers		15	0	0	0	0	15
Pressmen		9	0	0	0	1	10
Miscellaneous		49	6	0	0	0	43
SERVICE TRADES	(Total)	439	8	13	0	9	427
Automotive Trades		92	5	1	0	4	90
Barbers		80	0	2	0	1	79
Cosmeticians		62	1	3	0	0	58
Cooks		42	1	6	0	1	36
Meat Cutters		38	0	0	0	0	38
T.V. Service		34	1	1	0	0	32
Miscellaneous		91	0	0	0	3	94
TOTALS		2,421	82	27	8	62	2,366

Source: "Division of Apprenticeship and Training," Department of Industry, Labor and Human Relations, Madison, Wisconsin.

Other programs, in addition to the regular apprenticeship programs which operate under joint apprentice advisory committees, made up of equal representatives of labor and employers with the approval of the Division of Apprenticeship and Training of the State of Wisconsin, are the following:

1. Programs to upgrade persons working in a trade. Examples of trades that conduct such programs are the Steamfitters, Iron Workers, and Operating Engineers.

2. Pre-apprentice programs for disadvantaged and minority groups. Examples of trades that have conducted pre-apprentice programs are the Brick Masons, Carpenters, and Iron Workers.

Discussions with personnel working with apprentice programs have indicated that the number of programs for upgrading workers and also pre-apprentice programs for the disadvantaged and minorities may increase in the future.

Governmental Training Programs

Comprehensive interviews of training personnel in governmental units were carried out only in the City and County of Milwaukee. The City of Milwaukee has a comprehensive training and development program for its employees which includes all of the following areas:[13]

Equivalency tests
College preparation programs
Independent study
In-service training and promotional opportunities
Tuition reimbursement

The City offers some of its own courses in the areas mentioned above or assists employees in selecting and enrolling in courses offered by public and private institutions in the Milwaukee area.

The Milwaukee County also has a comprehensive training development program for its employees. Smaller governmental units are not large enough to offer all of the training and development opportunities that are available through the City and County. However, smaller units of government are increasing their use of vocational-technical schools in the training of police and fire personnel.

The Milwaukee Area Technical College plays a major role in the training program for fire and police personnel outside of the City of Milwaukee. A total of 392 police officers from police departments within the Milwaukee Area Technical College District, but outside of the City of Milwaukee, were enrolled in special training programs during the 1972-73 school year. The City of Milwaukee operates its own training facility for police and fire personnel. However, about 300 City of Milwaukee police officers were enrolled in Associate Degree courses in Police Science Technology

[13]"Training and Development Opportunities for City of Milwaukee Employees," City Service Commission Training Unit, August 1972.

during the 1972-73 school year. About two-thirds of the 743 students enrolled in Associate Degree courses in Police Science Technology were police officers (about 500). These 500 represent about 20% of all police officers in the Milwaukee Area Technical College District.

A total of 1,809 enrollments of fire fighters or industrial fire protection personnel was made in special programs for Fire Protection, Fire Prevention, and Fire Fighting during the 1972-73 school year. In addition, of 105 students enrolled in Associate Degree courses in Fire Technology during the second semester of 1972-73, approximately 95 were fire fighters employed by fire departments within the MATC District. Although the Milwaukee Fire Department operates its own school for in-service training, a majority of the 95 students enrolled in the Fire Technology program at MATC were employed by that department.

Business Organization Training Programs

As indicated in previous sections of this chapter, a number of business organizations operate training programs for employers. This is particularly true in the financial and insurance area. For the purposes of this study, three business organizations (Metropolitan Milwaukee Association of Commerce, Wisconsin Manufacturers' Association, and Printing Industries of Wisconsin) were interviewed. These three organizations carry out a number of training programs for business and industrial firms. The Metropolitan Milwaukee Association of Commerce operates the NABS program and is active in sponsoring training programs for all types of employees for many different classifications of employers. The great number of programs sponsored by business organizations and the small sample of data obtained makes it impractical to make an analysis of programs other than those mentioned previously in various SIC classifications.

CHAPTER V

SUMMARY AND RECOMMENDATIONS FOR FURTHER STUDY

The purpose of this study was to examine the extent and scope of training programs carried out by Wisconsin employers. A review of the literature revealed a lack of data concerning training programs, other than a feasibility study carried out by the University of Wisconsin.[14] A questionnaire was developed with the aid of an Advisory Committee, which was field tested and used in 261 interviews with representatives of employers. These interviews were conducted between July 1972 and March 1973 throughout the State of Wisconsin by VTAE personnel from 10 of the 16 Districts. An additional 81 questionnaires were obtained by mail.

As a summary to this study, a discussion of some of the findings will be made for each of the objectives of the study.

1. To indicate the extent of formal, organized training programs in Wisconsin sponsored by business, industry, labor, and government.

   Data was tabulated by the six standard industrial classifications in which a reasonable number of responses were obtained and by five job categories: Administrative and Supervisory, Other Professional and Technical, Clerical, Apprentice, and Others (Production, Maintenance, etc.).

   About 70% (231) of 327 employers in six SIC classifications had training programs in at least one of the five job categories used in this study. About 58% (189) of 327 employers had training programs in one, two, or three of the indicated job categories. Only 6.4% had training programs in all five job categories.

[14] Somers, op. cit.

There was a definite relationship between the amount of training offered and the size of the firm. With increasing numbers of employees there tends to be an increase in the amount of training provided.

Finance and insurance firms and health related employers tend to offer more training than other groups of employers. Wholesale and retail trade firms do the least amount of training. Universities, business organizations, and public and private technical schools are used often to provide training.

2. To determine the areas of training presently provided and the amount of such training being done in the State of Wisconsin in terms of number of trainees.

Training of administrative and supervisory personnel is done by more employers (46%) than any other job category. Training of administrative and supervisory personnel is often done through universities or a business organization.

Apprentice training is the most widely used type of training in manufacturing--durable goods companies. Two future trends are indicated in apprenticeship trades.

a. Increasing numbers of programs for upgrading workers, even after completion of apprenticeship.

b. Increases in pre-apprentice programs for disadvantaged and minorities.

There appears to be increased activities and emphasis in safety training and management development by manufacturing firms.

The number of trainees in programs and the characteristics of trainees were not generally available from employers, and adequate data to draw any conclusions could not be obtained. Other studies cited previously also indicate that information regarding numbers and characteristics of trainees is extremely difficult to obtain.

3. To assess the purposes of training programs, such as whether they are used for job entry, retraining, or upgrading of employees.

   The purpose of a majority of training programs, as indicated in this study, is upgrading of employees. Job entry ranked second in importance, and retraining of employees, third. The upgrading or retraining of administrative and supervisory personnel was the most frequently mentioned type of training program. Apprentice training was the most frequently mentioned type of job entry program. Universities, business organizations, and public and private vocational-technical schools are often used for training programs for the purposes listed.

4. To determine how Wisconsin VTAE Districts can be of assistance to business, industry, labor, and government employers with their training programs.

   Employers in this study associate VTAE schools primarily with apprentice training, skilled trades such as Machine Shop and Welding, secretaries and nursing occupations. Many employers do not seem to be aware of the great variety of courses in business, technical areas, and basic education that are available at vocational-technical schools.

   A number of VTAE schools are conducting training programs for business and industry and governmental employees. Examples of training programs at the Milwaukee Area Technical College are as follows:

   a. During 1972-73, 203 Machine Shop trainees from eight Milwaukee area firms completed training programs. These machine operators were newly hired, and all training took place at MATC.

   b. During 1972-73, 51 welders from four different Milwaukee area firms completed training programs at MATC.

   c. There were 1,809 enrollments during 1972-73 of fire fighters and industrial fire protection

personnel in special programs for fire protection, fire prevention, or fire fighting.

d. A total of 392 police officers participated in special police training programs at MATC during 1972-73. MATC is conducting training for police officers for most municipalities in its District.

A few of the many suggestions made by employer representatives for assisting business and industry training programs are the following:

Vocational instructors to teach in-house, using plant facilities and equipment (this suggestion has been mentioned frequently).

Closer coordination with secondary school system, to prevent duplication of material. Use VTAE to provide more advanced work.

Summer work in plants for faculty to help them understand need of industry.

Teachers from industry to do instruction in trade courses.

VTAE personnel to come into plants to aid in writing programs tailored to specific company needs.

Improve standards for students, requiring more than attendance.

More quality in programs that already exist.

Pre-apprenticeship programs for minorities.

Provide facilities and instructors to augment company programs.

Coop program with full day work plus night school, especially in clerical, drafting, industrial electricity, factory occupations, accounting.

Strengthen basic math instruction, applicable to factory life.

Share classrooms with industry.

Greater emphasis on supervisory training.

Short, intensive refresher courses in typing and shorthand.

More direct mail from schools telling of courses offered.

5. To increase communication between VTAE District personnel and business, industry, labor, and government training personnel.

The interviewers in this study were largely VTAE District coordinators. These coordinators are responsible for coordinating vocational-technical programs with the needs of business and industry. They should be in contact continuously with representatives of business and industry. This study was an opportunity for those who participated to not only learn what training programs exist in local industry and their needs, but also to inform business and industry representatives of programs and courses offered by VTAE Districts.

In the Milwaukee Area Technical College District nine different interviewers participated in the study. As a result of interviews for this study, two additional employers are using courses offered by MATC for training purposes. Many new contacts with business and industry were made, which should result in greater cooperation between MATC and employers in training programs, the placement of students, and suggestions for improving past program and course offerings.

Working with members of the Wisconsin Chapter of the American Society for Training and Development in the writing of this study should lead to other cooperative projects between the VTAE system and training directors.

Recommendations for Further Study

The limitations of this present study have already been reviewed in the text. In addition, prior studies designed to secure information on training programs in Wisconsin have shown the problems in securing this data. Difficulties seem to center on two problem areas: A) understanding meaning of the information supplied and B) interpreting the information using the same "yardstick," so accurate comparisons can be made. Based on these difficulties, this first recommendation is made:

1. Establish a common "language" and unit for defining kinds of training and its measurement.

   What is suggested is the development of a commonly acceptable term to describe types and kinds of training activity. For example, what connotes "pre-service" training or "job entry" instruction? Define "upgrading" training. These terms seem to reflect definition by intent, which can give a different meaning to the exact same material studied by two different persons.

   While companies indicated that they carried out training programs of different types in this study, researchers were unable to determine the true extent of these programs, lacking an applicable definition of a unit of instruction. The term "program" doesn't tell how long it is, how long it takes, or how much time and energy are spent on it by either instructor or learner. To measure accurately the extent of training in Wisconsin industry, a uniform "yardstick" would need to be established.

   The statewide scope of field work for this study introduced problems of control, consistency of data, and difficulties in interpretation. For that reason, a smaller grouping for gathering data is suggested:

2. Collect data by SIC categories, instead of on a statewide, all-industry-wide basis.

In this way, peculiarities of selected firms and industries can be studied in greater depth, and situations, conditions, and problems of individual industries may be examined more minutely.

To delve deeper into training activity in the State, this recommendation is made:

3. Examine published company policy on training.

This study can provide answers to questions like, "How are trainees selected?" Such study can help uncover the reasons training activity is carried out, why company people participate in training programs, and how training and trained personnel are related to internal company promotion policies.

There is little documented research showing reasons why training is generated the way it is. This recommendation is designed to provide that data:

4. Determine why and what training is carried out internally and by outside agencies.

Information collected here could point to reasons certain agencies or institutions are used for particular types of training. Answers to questions like, "What criteria determine whether training is done internally or by an outside agency?" can provide useful planning data for VTAE schools.

To secure the data needed for thorough and accurate study of Wisconsin training activity, it would be useful to have "interested" assistance from inside the firms. Thus, this recommendation:

5. Establish contacts and involve internal training people in companies, for guidance, advice, support, and assistance in identifying and securing information.

Following the principle that individuals support those things they have a hand in developing, this recommendation could ease the problem of having insufficient data in various SIC categories.

Since smaller firms do not identify training staff, communications and necessary contact with personnel people and others training-oriented in these companies are necessary to produce support in those businesses.

There is little evidence of the extent or scope of job-entry orientation and training. Because of the pivotal importance of this time and activity in the company life of a new employee, this recommendation is made:

6. Study the scope and extent of job-entry orientation.

Here it is possible to look both at company-related orientation as well as technical training which occurs at this point in the worker's career. Such information can help both employer and the technical school in understanding the needs of new employees at time of hire.

As effort to further explore existing training activity in Wisconsin firms, this suggestion is offered:

7. Examine the methods and media used in various training programs.

Data collected here aid in better understanding the scope and complexity of present training activity in the State. Information here can also help to provide some agreement on a standard measure of training where the term "program" does not suffice.

To reveal further the reasons training is carried out and to measure its usefulness in Wisconsin industry, a final recommendation suggests:

8. Examine the extent of measures of validity and effectiveness of training used in companies.

While the ultimate reason for any industrial training is better output and work performance, there is question whether the training time spent actually produces the desired results. Study here could help answer that question.

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APPENDICES

Appendix A - Advisory Committee - Vocational and Technical Education and Training Programs Sponsored by Business, Industry, Labor, and Government in Wisconsin

List of VTAE Technical and Industrial Coordinators Who Participated in the Study

Wisconsin Chapter of the American Society for Training and Development Analysis Teams

Appendix B - Wisconsin Board VTAE Interview Questionnaire for Study of Training Programs

Appendix A

Advisory Committee

Vocational and Technical Education and Training Programs Sponsored by Business, Industry, Labor, and Government in Wisconsin

Mr. Roland Krogstad, Wisconsin Board of Vocational, Technical and Adult Education

Mr. Arnold Potthast, Wisconsin Board of Vocational, Technical and Adult Education

Mr. Richard Sawicki, Wisconsin State AFL-CIO

Mr. August Cibarich, Wisconsin State Employment Service

Mr. Norman Huth, Wisconsin State Employment Service

Dr. Philip Ruehl (UW-Stout) Milwaukee Public Schools

Mr. Larry Landry, Milwaukee Association of Commerce

Dr. Robert E. Ristau, Wisconsin Department of Public Instruction

Mr. Eugene J. Ryshkus, American Motors Corporation

Mr. Dwayne Partain, Milwaukee Area Technical College

Appendix A

Mr. Reinhold A. Bents
Trade & Industrial Coordinator
District One VTAE District

Mr. Gerald Dittmer
Associate Chairman, Industrial Division
Western Wisconsin VTAE District

Miss Barbara Walter
Home Economics Division Chairman
Western Wisconsin VTAE District

Mr. Harold Thomas
Trade & Industry Special Program Coordinator
Blackhawk VTAE District

Mr. Fred G. Wentorf
Trade and Industry Field Services
Gateway VTAE District

Mr. Albert C. Goodrich
Industry and Technology
Waukesha County VTAE District

Mr. Roger Gibbons
Trade & Industry Department Chairman
Moraine Park VTAE District

Mr. Charles Anhalt
Division Chairman--Trade and Industry
Mid-State VTAE District

Mr. Ronald Schubert
Trade and Industry
North Central VTAE District

Mr. Clarence Karow
Adult Education Administrator
Wisconsin Indianhead VTAE District

Mr. Forrest J. Nutter
Area Coordinator
Wisconsin Indianhead VTAE District

Mr. Richard Roder
Coordinator, Trade and Industrial Education
Wisconsin Indianhead VTAE District

Appendix A

Milwaukee Area Technical College

Mr. Eugene Bochek, Placement Department

Mr. Robert Braun, Placement Department

Mrs. Phillis Jelich, Coordinator

Mr. Robert Lynch, Instructor

Mr. Dwayne Partain, Business and Industry Relations

Mrs. Terri Printz, Coordinator

Mr. David Zakrzewski, Instructor

Mr. Erwin Zaporski, Coordinator

Analysis Team Members American Society for Training and Development

Mr. Richard R. Buerger, General Personnel Relations Supervisor
Wisconsin Telephone Company

Mr. James A. Haire, Sales Training Supervisor
Joseph Schlitz Brewing Company

Ms. Gwen T. Jackson, Vice President, Personnel
Brills Colony

Mr. Larry J. Kempf, Director of Personnel and Public Relations
Oconomowoc Hospital

Mr. Milton C. Rohm, Training Coordinator
Northwestern Mutual Life Insurance Company

Mr. Jude M. Werra, Training Supervisor
American Motors Corporation

Appendix B

WISCONSIN BOARD VTAE INTERVIEW QUESTIONNAIRE FOR STUDY OF TRAINING PROGRAMS

Directions

Explain the objectives of the survey to the employer.

A state-wide survey of training programs in business, industry, labor, and government is being sponsored by the Wisconsin Board of Vocational, Technical and Adult Education. Two of the objectives of the survey are to determine the extent of organized formal training programs of employers, on or off their premises, and to identify areas in which vocational, technical and adult education schools might be of assistance in these programs, or in providing new programs.

A formal organized training program differs from the usual on-the-job training in that it has some structured instructional activities, such as lectures, programmed instruction, correspondence courses, discussion groups, etc, with definite objectives.

After you have determined whether formal organized training programs exist and have completed questions 1-4, complete the table of Current Training Programs on page 3 (see example of completed table).

After completion of Current Training Program table, go through questions 5-10. The interviewer may want to ask some specific questions for district use. For example, in questions 7, 8, and 9, the interviewer may want to obtain information about specific programs as well as the general categories.

Appendix B

WISCONSIN BOARD VTAE INTERVIEW QUESTIONNAIRE FOR STUDY OF TRAINING PROGRAMS

Name of Firm: _____ Address: _____

Number of Employees _____ SIC Code _____ VTAE District _____

Number of Employees on Training Staff: _____

1. Do you have organized, formal training programs for your employees?

Administrative and Supervisory	Yes ___	No ___
Other Professional and Technical	Yes ___	No ___
Clerical	Yes ___	No ___
Apprentices	Yes ___	No ___
Other (Production, Maintenance, etc.)	Yes ___	No ___

2. What is the purpose of these training programs?

	Job Entry	Retraining	Upgrading of Employees
Administrative and Supervisory	___	___	___
Other Professional and Technical	___	___	___
Clerical	___	___	___
Apprentices	___	___	___
Other (Production, Maintenance, etc.)	___	___	___

3. Approximately how many employees were trained from June 1971 to June 1972 in the following types of training courses?

Training done in classrooms at your facility:

	Under 10 (1)	11 - 25 (2)	26 - 50 (3)	51 - 100 (4)	101 and Over (5)
Administrative and Supervisory	___	___	___	___	___
Other Professional and Technical	___	___	___	___	___
Clerical	___	___	___	___	___
Apprentices	___	___	___	___	___
Other (Production, Maintenance, etc.)	___	___	___	___	___

Training done in classrooms off of the premises but paid for by your organization:

Administrative and Supervisory	___	___	___	___	___
Other Professional and Technical	___	___	___	___	___
Clerical	___	___	___	___	___
Apprentices	___	___	___	___	___
Other (Production, Maintenance, etc.)	___	___	___	___	___

4. What training programs are conducted using classrooms off your premises and/or instructors who are not full-time employees of your organization? What schools or firms are used for these training programs?

Program	School or Firm

Description of Current Training Programs Conducted By Your Establishment

List Each Program By Name (Include Type of Job)	1) Estimate Number of Trainees (June 71-72) 2) Purpose of Program (Job Entry, Retraining, Upgrading, Other)	Length		Where Held		How Are Trainees Selected? (Performance, Tests, Seniority, Job Posting, Other)	Trainee Characteristics (Estimate of Average Age, Educational Background*)
		No. of Sessions	Hrs. Per Session	In Plant	Out of Plant		

*Use the following characteristics: High School graduate or less, High School graduation or equivalent required, some post-secondary training required, Associate Degree required, college degree required.

Appendix B

5. Have there been major changes in your training programs (such as type of training, number of programs, number of trainees, length of training, etc.) since 1970? Since 1966?

Changes since 1970: _____

_____

_____

_____

_____

Changes since 1966: _____

_____

_____

_____

_____

6. Does someone in your firm periodically review your employees' performance and discuss their training needs with them? (√) Yes ___ No ___

If yes, at which of the following levels:

___ Administrative and Supervisory
___ Other Professional and Technical
___ Clerical
___ Apprentices
___ Other (Production, Maintenance, etc.)

7. Could you estimate how many employees your organization might hire from the following categories from June 1972 to June 1973?

	1-5 (1)	6-15 (2)	16-30 (3)	31-60 (4)	60+ (5)
Administrative and Supervisory	___	___	___	___	___
Other Professional and Technical	___	___	___	___	___
Clerical	___	___	___	___	___
Apprentices	___	___	___	___	___
Other (Production, Maintenance, etc.)	___	___	___	___	___

8. Have you hired graduates or students from our VTAE district in the following categories in the past? (√)

Administrative and Supervisory	Yes ___	No ___
Other Professional and Technical	Yes ___	No ___
Clerical	Yes ___	No ___
Apprentices	Yes ___	No ___
Other (Production, Maintenance, etc.)	Yes ___	No ___

9. What is your general opinion of the quality of preparation of VTAE graduates?

Excellent ____ Good ____ Fair ____ Poor ____ Unsatisfactory ____

Comment _____

_____

_____

10. What new programs or courses do you think would be beneficial to your company? Examples: Cooperative programs, internships, summer work for students or faculty, VTAE instructors for your training programs, business, industry and labor instructors for VTAE courses, specific courses or groups of courses.

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